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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
BLAIR, DOUGLAS B	
ART UNIT	PAPER NUMBER
2142	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/752,643	FLEMING ET AL.	
	Examiner	Art Unit	
	Douglas B. Blair	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *30,32-34,37-47 and 49-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *30,32-34,37-47 and 49-60* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 6/11/2007 with respect to the rejection of claims 44-46, 55-58, and 61 based on 35 USC section 101 have been fully considered but they are not persuasive. The applicant argues that since the claim has been amended to include a tangible medium, that it is now statutory. However, the applicant's remarks do not render the term "tangible" statutory because carrier waves can be interpreted as "tangible" even if that is not the applicant's intention. The applicant should positively claim statutory subject matter.

2. The previous rejections based on 35 USC section 112 are withdrawn in view of the applicant's clarifying remarks. A new rejection is made based on 35 USC section 112 1st paragraph because the amended claims do not appear to be enabled by the applicant's disclosure.

3. The applicant's arguments with respect to Kammer are persuasive that Kammer does not anticipate the claimed invention however the rejections based on Kammer have been revised to obviousness rejections.

Claim Rejections - 35 USC § 101

4. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 44-46, 55-58, and 61 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The applicant's specification states that a machine-readable medium could be a transmissive medium that could be construed as an energy source such as a carrier wave and therefore makes claims 44-46 and 55-58 non-statutory.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 30, 32-34, 37-47, and 49-61 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The applicant's specification is not enabling because it does not explain how a device can connect to another device without using virtual communication ports as claimed.

8. The applicant's invention is directed towards the Bluetooth protocol (see page 3, lines 15-21 of the applicant's specification). The applicant alleges that the invention is not limited to Bluetooth (page 3, line 21-page 4, line 2 of the applicant's specification) but there are no examples of "different implementations of an SDP query and response" discussed by the applicant or otherwise known by the Examiner. The applicant's specification further states that, "the Bluetooth protocol typically uses virtual communications ports for purposes of communication between devices" (page 4, lines 15-17). The only mention that the applicant's specification makes about connecting to a service on another device without using virtual communication ports is on page 6, lines 1-6, which states:

> In one embodiment, the connection request need not include the virtual communication port identifier from the service, but need only include the name of the service. For example, utilizing the illustration of Figure 2, the name 'Application XYZ COMPANY file transfer service' may be used to indicate the appropriate service. This avoids the problem of maintaining and discovering current information about the virtual communication port used by the service.

The applicant's specification is saying that connecting to a service on another device without using virtual communication ports can be done but provides no description, explanation, or guidance on how it can be done.

9. Because the applicant's specification fails to impart any knowledge to the public on how to implement the claimed invention, it places an undue burden of experimentation on anyone trying to use the applicant's claimed invention. The determination of undue experimentation is base don the factors described in sections 2164.01(a) and 2164.08 of the MPEP.

10. The first factor is "breadth of the claims". Though the claims are not explicitly directed towards the Bluetooth, the only implementation that the applicant discusses is the Bluetooth so one skilled in the art interpreting the claims in light of the specification would recognize that he claims are directed towards the discovery and connection to Bluetooth services.

11. The second factor is "the nature of the invention". Bluetooth is a well-known protocol and it is reasonable to believe that those skilled in the Networking art would have knowledge of its implementation details.

12. The third factor is "the state of the prior art". There are many implementations for discovering and connecting to services in Bluetooth systems that use virtual communication ports (see the Kammer reference for example and applicant's specification page 4, lines 15-17).

13. The fourth factor is "the level of one of ordinary skill". As discussed, Bluetooth is a ubiquitous protocol so it is reasonable to believe that one ordinary skill would have knowledge of its implementation.

14. The fifth factor is "the level of predictability in the art". Though one skilled in the art may be able to implement service discovering and connection techniques using virtual communication ports, the Examiner is aware of no examples or suggestions in the art on how to connect to a service via Bluetooth without the use of a virtual communication port. Nor is it apparent how such a task would be performed.

15. The sixth factor is " the amount of direction provided by the inventor". As pointed out the inventor merely states that connections can be made without using a virtual communication port but does not provide and description, guidance or explanation on how this can be done. The applicant has provided no direction at all for one skilled in the art trying to implement the claimed invention.

16. The seventh factor is "the existence of working examples". The Examiner is not aware of any working examples nor has the applicant provided any reference to working examples.

17. The eighth factor is " the quantity of experimentation needed to make or use the invention based on the content of the disclosure". Given that the applicant's merely provides an statement that services can be connected to without the use of a virtual communication port, a person skilled in the art trying to implement the claimed invention would be essentially starting from scratch and thus a massive quantity of experimentation would be necessary.

18. From an analysis of these factors, it can be concluded that though the there are many examples of service discovery and connection in Bluetooth, there are no examples that of service discovery and connection that do not use a virtual communication port. Because the applicant's specification provides no information to bridge the gap in what is known in the art and what is

claimed, an undue burden of experimentation is placed on one skilled in the art trying to implement the applicant's claimed invention. The claimed invention is not enabled.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

20. Claims 30, 32-34, 37-47, and 49-61 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Number 6,826,387 to Kammer.

21. Kammer teaches the invention as claimed (as in exemplary claim 30) including a method comprising: receiving a service record at a first radio device from a second radio device through a virtual communications port, the service record including a service record handle to identify the service record, a service name to identify a service of the second radio device, and a virtual communications port associated with the service record **(col. 13, lines 6-14, Device B receives the service record including the name from Device A)**; maintaining a database of radio device service records containing a service name and an associated virtual communications port for each service record **(col. 12, lines 51-58, both Devices A and B can be considered to maintain database for service records)**; sending a connection request from the first radio device to the second radio device, the connection request including the service name to indicate the appropriate service **(col. 13, lines 15-17, the service name is used to locate the application)**;

and connecting to a first service for which a radio device service record exists in the database utilizing the service name of the first service to initiate the connection **(col. 13, lines 16-22, the connection is established after the service name is used to locate the application)**; however Kammer does not explicitly teach making a connection to a service and not using the virtual communication port.

It would have been obvious to one of ordinary skill in the Computer Networking art at the time of the invention to combine the teachings of Kammer regarding connecting to a service with the idea of connecting to a service without including or using an associated virtual communication port in a connection request because the omission of an element and its function is obvious if the function of the element is not desired (See MPEP section 2144.04(II)).

22. Kammer teaches a method (as in claim 32) wherein receiving a service record comprises receiving a service record from an advertising device (col. 13, lines 6-14).

23. Kammer teaches a method (as in claim 33) comprising sending a query and wherein receiving a service record comprises receiving service record in response to a query (col. 13, lines 6-14).

24. Kammer teaches a method (as in claim 34) wherein sending a query is sent utilizing a Bluetooth protocol SDP request and wherein the service record is received in the form of an SDP response (col. 13, lines 6-14).

25. Kammer teaches a method (as in claim 37) further comprising connecting to a second service for which a radio device service record exits in the database utilizing the service name of the second service to initiate the connection (col. 13, lines 6-23, Kammer is clearly not limited to just one service).

26. Kammer teaches a method (as in claim 58) wherein sending a connection request comprises sending the connection request without including an indication of the virtual communications port through which the service record was received (col. 13, lines 14-19, only the service name is used to request/locate the service. Only then is the connection established using the ports).

27. As to claims 38-40 and 59, Kammer teaches an apparatus that implements the method of claims 30, 32-34, 37, and 58.

28. As to claims 41-43 and 60, Kammer teaches radio devices that implement the method of claims 30, 32-34, 37, and 58 (Kammer uses Bluetooth devices just as the applicant).

29. As to claims 44-46 and 61, Kammer teaches a medium embodying instructions for implementing the method of claims 30, 32-34, 37, and 58.

30. As to claims 47 and 49-57, they correspond to the method of claims 30, 32-34, 37-46, and 58-61 with just the nomenclature of the first and second devices changed, therefore the are rejected for the same reasons pointed out previously.

Conclusion

31. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

32. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Douglas B. Blair whose telephone number is (571) 272-3893. The examiner can normally be reached on 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew Caldwell

ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER

Douglas Blair
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